



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|------------------------|---------------------|------------------|
| 09/866,502 | 05/25/2001 | Frederick Robert Chang | SBC-0101 | 4455 |
| 34431 | 7590 | 03/22/2007 | EXAMINER | |
| HANLEY, FLIGHT & ZIMMERMAN, LLC | | | JACOBS, LASHONDA T | |
| 150 S. WACKER DRIVE | | | ART UNIT | PAPER NUMBER |
| SUITE 2100 | | | | |
| CHICAGO, IL 60606 | | | 2157 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 03/22/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|------------------------|---------------------|--|
| | 09/866,502 | CHANG ET AL. | |
| | Examiner | Art Unit | |
| | LaShonda T. Jacobs | 2157 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 July 2006.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-8,11-35 and 37-44 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 36 is/are allowed.

6) Claim(s) 1-8,11-35 and 37-44 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. _____
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ 5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Response to Amendment

This Office Action is in response to Applicant's Amendment/Request for Reconsideration filed on July 13, 2006. Claims 1-5, 7-8, 11-12 and 14-36 have been amended. Claims 1-5, 7-8 and 11-35 are presented for further examination. Claim 36 is allowed. Claims 37-44 are newly submitted claims directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Inventions I and II are related mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 37-44 are withdrawn from consideration s being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2157

2. Claims **1, 3-5, 7-13, 15-17** and **25-31** 35 U.S.C. 103(a) as being unpatentable over Scott et al (hereinafter, "Scott", U.S. Pub. No. 2002/0049760) in view Vigue et al (hereinafter, "Vigue" U.S. Pat. No. 6,983,326).

As per claim 1, Scott discloses a method for improving the reliability of peer-to-peer network downloads, comprising:

- receiving a list of servers that satisfy the search (paragraph 0045-0046);
- comparing a connection speed of at least one of the servers to an available bandwidth or the client (paragraph 0046);
- selecting one of a plurality of downloading systems based on a the comparison (paragraph 0046); and
- downloading a file using one of the plurality of downloading systems (paragraphs 0027 and 0050).

However, Scott does not explicitly disclose:

- initiating a broadcast search from a client on a peer-to-peer network.

Vigue a system and method for distributed function discovery in a peer-to-peer network environment including:

- initiating a broadcast search from a client on a peer-to-peer network (col. 2, lines 45-54 and col. 4, lines 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Scott by allowing the peers within a network to broadcast searches to each other in order to facilitate efficient use of bandwidth and resources.

As per claim 15, Scott discloses a method of improving the reliability of peer-to-peer network downloads, comprising:

- receiving a list of servers and a list of associated document names that satisfy the search query (paragraphs 0041 and 0046);
- comparing a connection speed of at least one of the servers to an available bandwidth or the client (paragraph 0046);
- determining one of a plurality of downloading systems based on a the criteria (paragraph 0046); and
- downloading a file via the one of the plurality of downloading systems (paragraphs 0027 and 0050).

However, Scott does not explicitly disclose:

- broadcasting a search query from a client over the peer-to-peer network.

Vigue a system and method for distributed function discovery in a peer-to-peer network environment including:

- broadcasting a search query from a client over the peer-to-peer network (col. 2, lines 45-54 and col. 4, lines 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Scott by allowing the peers within a network to broadcast searches to each other in order to facilitate efficient use of bandwidth and resources.

As per claim 25, Scott discloses a method of operating a peer-to-peer network comprising:

- receiving a list of peer servers that meet a search query (paragraph 0046);

Art Unit: 2157

- comparing a connection speed of at least one of the servers to an available bandwidth or the client (paragraph 0046);
- selecting one of a plurality of downloading systems based on a the comparison (paragraph 0046); and
- downloading a file using the one of the plurality of downloading systems (paragraphs 0027 and 0050).

However, Scott does not explicitly disclose:

- initiating a broadcast search from a first peer to the peer-to-peer network.

Vigue a system and method for distributed function discovery in a peer-to-peer network

environment including:

- initiating a broadcast search from a first peer to the peer-to-peer network (col. 2, lines 45-54 and col. 4, lines 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Scott by allowing the peers within a network to broadcast searches to each other in order to facilitate efficient use of bandwidth and resources.

As per claim 3, Scott discloses wherein:

- one of the plurality of downloading systems is a multiple concatenated download system (paragraphs 0027 and 0050; Scott discloses a peer downloading a file from a first server and the second server starts to download the file one byte greater than the amount of the file received from the first server. Therefore, Scott meets Applicants' definition of multiple concatenated downloading (see specification page 6, lines 16-20)).

As per claim 4, Scott discloses wherein:

Art Unit: 2157

- one of the plurality of downloading systems is a serial concatenated download system
(paragraphs 0027 and 0046, Scott discloses a peer choosing to downloading a file from a first server in the list of servers. Therefore, Scott meets Applicants' definition of serial concatenated downloading (see specification page 6, lines 5-7).

As per claim 5, Scott discloses further comprising:

- determining the connection speed of the at least one of the servers (paragraph 0046).

As per claim 7, Scott discloses wherein initiating the broadcast search from the client on the peer-to-peer network further comprises:

- entering a text string (paragraph 0070).

As per claim 8, Scott discloses wherein initiating the broadcast search from the client on the peer-to-peer network further comprises:

- entering a unique key (paragraphs 0033 and 0044).

As per claim 11, Scott discloses wherein receiving the list of servers further comprises:

- receiving a document name (paragraphs 0030 and 0045-0046).

As per claim 12, Scott discloses wherein receiving the list of servers further comprises:

- receiving a file size (paragraphs 0030 and 0045-0046).

As per claim 13, Scott discloses wherein receiving the list of servers further comprises:

- receiving a source node for a file (paragraph 0045-0046).

As per claim 16, Scott discloses wherein further comprises:

- entering a unique key that identifies the file (paragraphs 0038 and 0044).

As per claim 17, Scott discloses receiving the list of servers further comprises:

- receiving a file size, a source node and a unique key (paragraphs 0030 and 0045-0046).

As per claim 26, Scott discloses wherein selecting one of the plurality of downloading systems further comprises:

- determining the connection speed to each of the peer servers on the list of peer servers (paragraph 0046);
- selecting a subset of the list of peer servers based on the determined connection speeds (paragraph 0046).

As per claim 27, Scott discloses wherein determining the connection speed to each of the peer servers on the list of peer servers further comprises:

- requesting and receiving a test file from each of the servers on the list of servers (paragraphs 0044-0045).

As per claim 28, Scott discloses determining the connection speed to each of the peer servers on the list of peer servers further comprises:

- determining an order of response receipt from each of the servers on the list of servers (paragraph 0045).

As per claim 29, Scott discloses determining the connection speed to each of the peer servers on the list of peer servers further comprises:

- pinging each of the servers on the list of servers (paragraph 0046).

As per claim 30, Scott discloses wherein the step (d) further includes the steps of:

- when an available bandwidth is less than a two times a connection speed, selecting a server with a fastest connection speed (paragraph 0046); and
- starting a download from the server with the fastest connection speed (paragraphs 0046 and 0050).

As per claim 31, Scott discloses wherein downloading the file using one of the plurality of downloading systems further comprises:

- determining if the server with the fastest connection speed had an error before the file download was completed (paragraphs 0046 and 0049);
- when the server with the fastest connection speed had an error before the file download was completed, selecting a second server (paragraphs 0046 and 0049);
- determining a last byte received (paragraph 0050); and
- transmitting download starting from a next byte command to a second server. (paragraph 0050).

3. Claim 2 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view Vigue and in further view of Fanning et al (hereinafter, "Fanning", U.S. Pat. No. 6,742,023).

As per claim 2, Scott in view of Vigue discloses the invention substantially as claims discussed above.

However, Scott in view of Vigue does not explicitly disclose wherein:

- one of the plurality of downloading systems is a multiple concurrent download system.

Fanning discloses a use-sensitive system for distribution of data files between users in a networked community of users comprising:

- one of the plurality of downloading systems is a multiple concurrent download system (col. 9, lines 5-14 and col. 11, lines 30-49, Fanning discloses a user that is allowed to configure and request concurrent downloading).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Scott in view of Vigue by including a concurrent downloading system that allows a user to simultaneously download files from a server in order to transfer files between users so that bandwidth costs of providing data are fairly and properly distributed across the network thereby providing users with a way to quickly and reliably locate data they wish to acquire.

As per claim 32, Scott discloses wherein downloading the file using the selected one of the downloading systems further comprises:

- when an available bandwidth is not less than two times the connection speed to at least one of the peer servers, selecting a plurality of servers from the list of servers (paragraph 0046); and

Fanning discloses a use-sensitive system for distribution of data files between users in a networked community of users comprising:

- starting a plurality of simultaneous downloads from the plurality of servers (col. 9, lines 5-14 and col. 11, lines 30-49, Fanning discloses a user that is allowed to configure and request concurrent downloading).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Scott by including a concurrent downloading system that allows a user to simultaneously download files from a server in order to transfer files between users so that bandwidth costs of providing data are fairly and properly distributed across the network thereby providing users with a way to quickly and reliably locate data they wish to acquire.

As per claim 33, Scott further discloses:

- determining if the client has received a complete version of the file from one of the plurality of servers (paragraphs 0049); and
- when the client has received a complete version of the file from one of the plurality of servers, terminating remaining downloads (paragraph 0049).

As per claim 34, Scott in view of Vigue discloses downloading the file using the one of the plurality of downloading systems further comprises:

- when an available bandwidth is not less than two times the connection speed to at least one of the peer servers, selecting a plurality of servers from the list of servers (paragraph 0046); and

Fanning discloses a use-sensitive system for distribution of data files between users in a networked community of users comprising:

- starting a plurality of simultaneous offset downloads from the plurality of servers (col. 9, lines 5-14 and col. 11, lines 30-49, Fanning discloses a user that is allowed to configure and request concurrent downloading).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Scott in view of Vigue by including a concurrent downloading system that allows a user to simultaneously download files from a server in order to transfer files between users so that bandwidth costs of providing data are fairly and properly distributed across the network thereby providing users with a way to quickly and reliably locate data they wish to acquire.

As per claim 35, Scott further discloses:

Art Unit: 2157

- when a complete file can be formed from the plurality of simultaneous offset downloads, constructing a complete file (paragraphs 0050 and 0054); and
- when a complete file can be formed from the plurality of simultaneous offset downloads, constructing a complete file (paragraphs 0050 and 0054).

4. Claims 14 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Vigue and in further view of Schleicher et al (hereinafter, "Schleicher", U.S. Pub. No. 2002/0138744).

As per claim 14, Scott in view Vigue discloses the invention substantially as claims discussed above.

However, Scott in view of Vigue does not explicitly disclose wherein receiving the list of servers further comprises:

- receiving an available bandwidth at least one of the servers.

Schleicher discloses a method and system for providing a secure peer-to-peer file delivery network comprising:

- receiving an available bandwidth at least one of the servers (paragraphs 0040 and 0045-0046).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Scott in view of Vigue by comparing the bandwidth speed of the closest client nodes containing the files in order to transfer the file from the closest client node directly to the subscribing node, thereby efficiently utilizing bandwidth.

As per claim 18, Scott in view of Vigue further discloses:

- measuring the connection speed to a plurality of servers (paragraph 0046).

As per claim 19, Scott in view of Vigue discloses wherein determining one of the plurality of downloading systems further comprises:

- when the available bandwidth of the client is less than the connection speed to two of the servers, selecting a serial concatenated download system (paragraphs 0027 and 0046, Scott discloses a peer choosing to downloading a file from a first server in the list of servers. Therefore, Scott meets Applicants' definition of serial concatenated downloading (see specification page 6, lines 5-7).

However, Scott in view Vigue does not explicitly disclose:

- determining an available bandwidth of the client is less than a connection speed to two of the servers on the list.

Schleicher discloses a method and system for providing a secure peer-to-peer file delivery network comprising:

- determining an available bandwidth of the client is less than a connection speed to two of the servers on the list (paragraphs 0040 and 0045-0046).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Scott in view of Vigue by comparing the bandwidth speed of the closest client nodes containing the files in order to transfer the file from the closest client node directly to the subscribing node, thereby efficiently utilizing bandwidth.

As per claim 20, Scott further discloses:

- when the available bandwidth is not less than the connection speed to the two of the servers, selecting a multiple concurrent download system (paragraphs 0027 and 0050;

Scott discloses a peer downloading a file from a first server and the second server starts to download the file one byte greater than the amount of the file received from the first server. Therefore, Scott meets Applicants' definition of multiple concatenated downloading (see specification page 6, lines 16-20).

As per claim 21, Scott further discloses:

- when the available bandwidth is not less than the connection speed to the two of the servers, selecting a multiple concatenated download system (paragraphs 0027 and 0050);
Scott discloses a peer downloading a file from a first server and the second server starts to download the file one byte greater than the amount of the file received from the first server. Therefore, Scott meets Applicants' definition of multiple concatenated downloading (see specification page 6, lines 16-20).

As per claim 22, Scott discloses wherein selecting the serial concatenated download system further comprises:

- starting a download from a first one of two servers (paragraphs 0049-0050);
- if the download from the first one of the two servers is interrupted during the download, selecting a second one of the two servers to start a download at a next byte after a last received byte (paragraphs 0049-0050).

As per claim 23, Scott discloses wherein selecting the multiple concurrent download system further comprises:

- starting a download from at least two servers (paragraphs 0049-0050);
- if any of the servers finishes the download, terminating the download from any other server (paragraphs 0049-0050).

As per claim 24, Scott discloses wherein electing the multiple concatenated download system further comprises:

- starting a first download at a first byte of the file from a first one of the two servers (paragraphs 0049-0050);
- starting a second download at a second byte of the file from a second one of the at least two servers (paragraphs 0049-0050);
- determining when a complete file has been downloaded by combining the first download and the second download (paragraphs 0049-0050).

Allowable Subject Matter

6. Claim 36 is allowed.

Response to Arguments

7. Applicant's arguments filed July 13, 2006 have been fully considered but they are not persuasive.

The Office Notes the following arguments:

- Scott, Vigue, Fanning or Schleicher does not teach comparing the connection speed to at least one of the servers on the list to an available client bandwidth.

In response to:

Applicant argue that Scott, Vigue, Fanning or Schleicher does not teach comparing the connection speed to at least one of the servers on the list to an available client bandwidth.

However the Examiner disagrees. Scott was relied upon to teach this limitation. Scott discloses

a peer-to-peer network in which a peer is searching for files. The central server then generates a list of servers with the requested information. The peer then selects a server to process his/her request according location of the server, the distance, traffic on the server (paragraphs 0044 and 0046). Applicant claim language is given the broadest interpretation, therefore Scott does teach comparing the connection speed to at least one of the servers on the list to an available client bandwidth.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

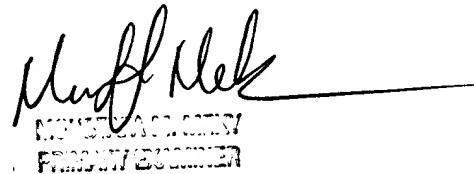
Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 571-272-4004. The examiner can normally be reached on 8:30 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LaShonda T Jacobs
Examiner
Art Unit 2157

ltj
March 19, 2007



LaShonda T Jacobs
Examiner
Art Unit 2157